

Abstract

A mechanism for synchronizing state variables used by texture pipelines in a multi-pipeline graphics texture engine. The mechanism ensures that, as polygons are processed by a texture engine, the state variables associated with each polygon are distributed in parallel to each texture pipeline, regardless of whether the texture engine is processing a single texture or a blend of different textures. When the texture engine processes a blend of different textures, signals controlling the operation of multiple texture pipelines are asserted. However, when the texture engine processes a single texture for a polygon, an embodiment of the invention continues to distribute received state variables to each of the texture pipelines, but only triggers the processing portion of the texture pipeline performing the single texture operation. The processing portions of the remaining texture pipelines may not be triggered. Thus, the invention maintains the consistency of received polygon state variables across parallel texture pipelines while simultaneously providing for efficient use of a multi-pipeline texture engine by triggering only one texture pipeline when a single texture operation is required.

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